

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problem Mailbox.**

Figure 1

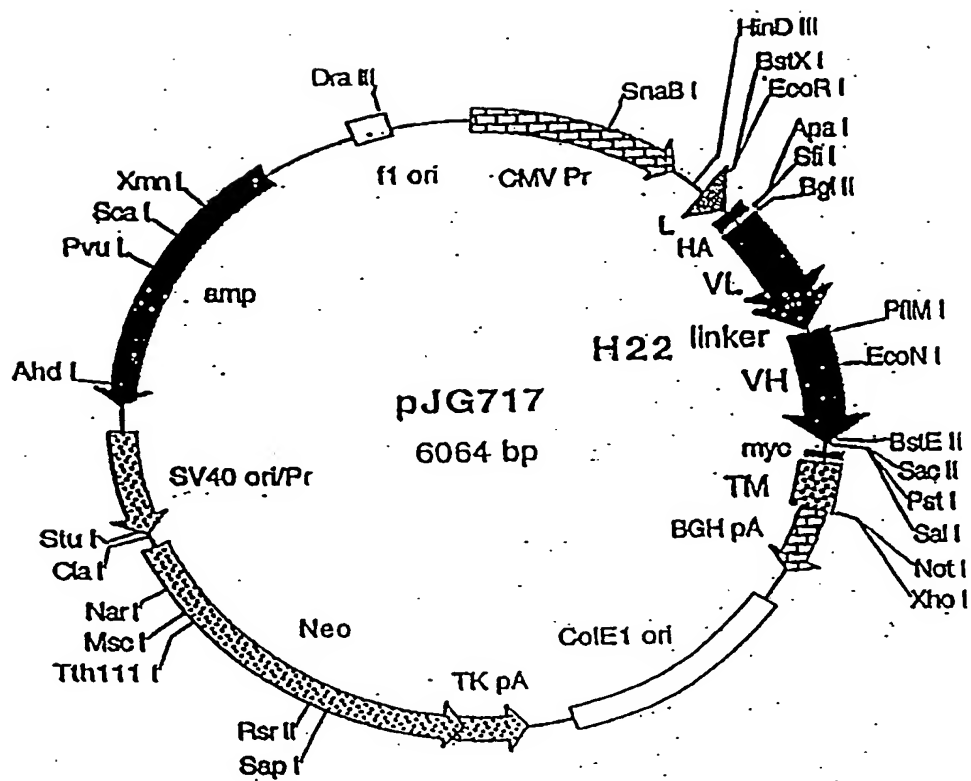
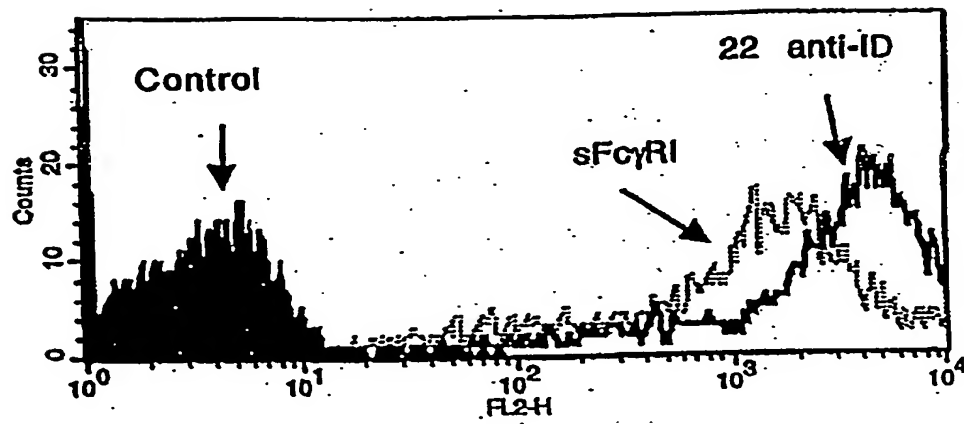


Figure 2.

## NSO Cells



## MTC Cells

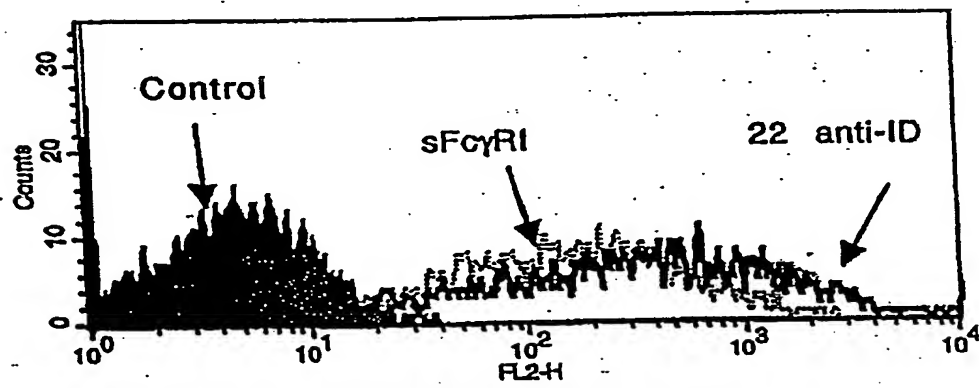
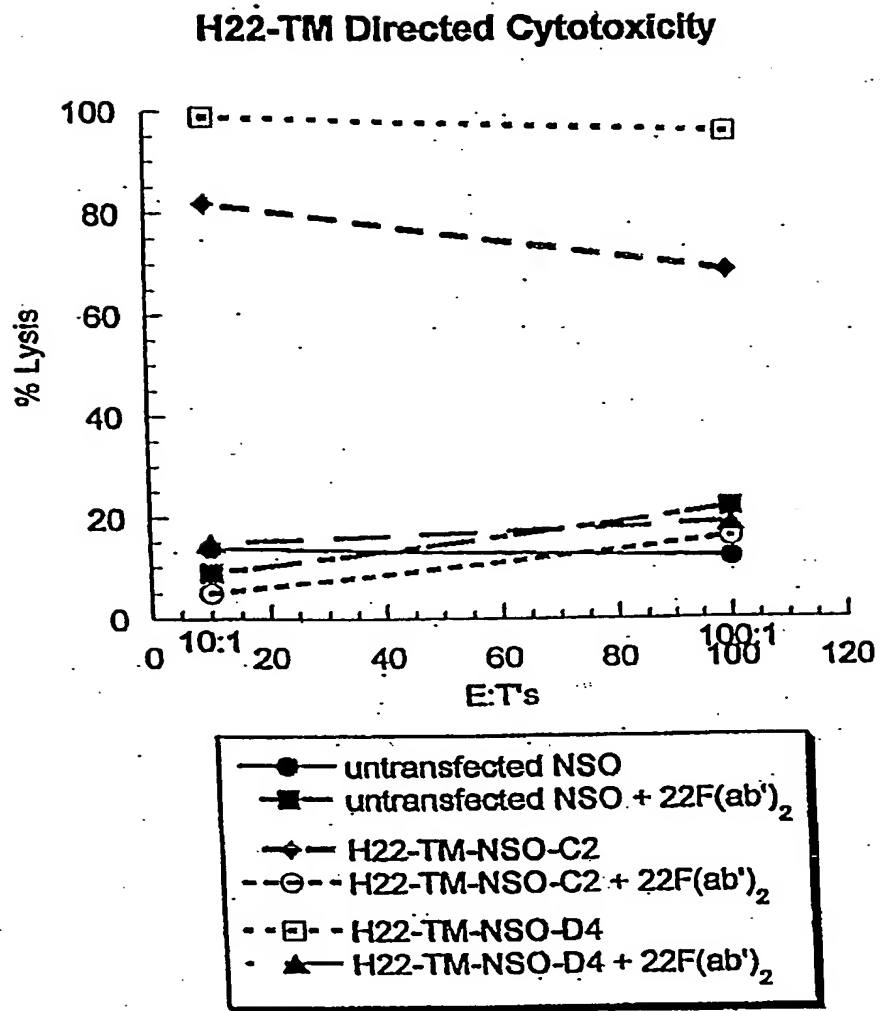


Figure 3.



Sequenc Range: 1 to 1132

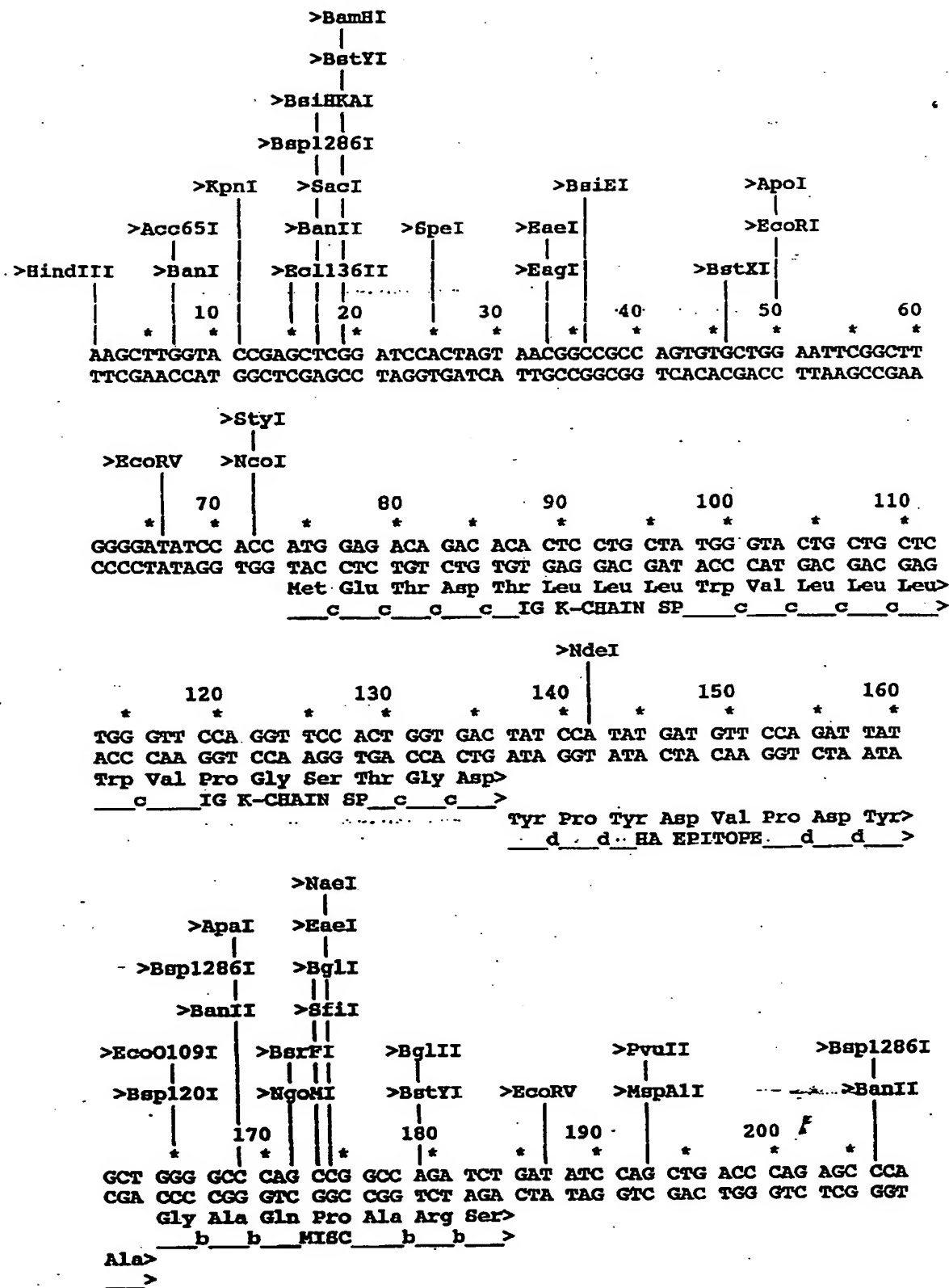


FIGURE 4A

Asp Ile Gln Leu Thr Gln Ser Pro>  
 \_\_\_\_\_H22 VL\_\_\_\_\_>

>BaeII

210                    220                    230                    240                    250  
 \*                    \*                    \*                    \*                    \*  
 AGC AGC CTG AGC GCC AGC GTG GGT GAC AGA GTG ACC ATC ACC TGT AAG  
 TCG TCG GAC TCG CGG TCG CAC CCA CTG TCT CAC TGG TAG TGG ACA TTC  
 Ser Ser Leu Ser Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys Lys>  
 \_\_\_\_\_H22 VL\_\_\_\_\_>

260                    270                    280                    290                    300  
 \*                    \*                    \*                    \*                    \*  
 TCC AGT CAA AGT GTT TTA TAC AGT TCA AAT CAG AAG AAC TAC TTG GCC  
 AGG TCA GTT TCA CAA AAT ATG TCA AGT TTA GTC TTC TTG ATG AAC CGG  
 Ser Ser Gln Ser Val Leu Tyr Ser Ser Asn Gln Lys Asn Tyr Leu Ala>  
 \_\_\_\_\_H22 VL\_\_\_\_\_>

>KpnI

>BamI

>Acc65I

310                    320                    330                    340                    350  
 \*                    \*                    \*                    \*                    \*  
 TGG TAC CAG CAG AAG CCA GGT AAG GCT CCA AAG CTG CTG ATC TAC TGG  
 ACC ATG GTC GTC TTC GGT CCA TTC CGA GGT TTC GAC GAC TAG ATG ACC  
 Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr Trp>  
 \_\_\_\_\_H22 VL\_\_\_\_\_>

>MspAI

360                    370                    380                    390                    400  
 \*                    \*                    \*                    \*                    \*  
 GCA TCC ACT AGG GAA TCT GGT GTG CCA AGC AGA TTC AGC GGT AGC GGT  
 CGT AGG TGA TCC CTT AGA CCA CAC GGT TCG TCT AAG TCG CCA TCG CCA  
 Ala Ser Thr Arg Glu Ser Gly Val Pro Ser Arg Phe Ser Gly Ser Gly>  
 \_\_\_\_\_H22 VL\_\_\_\_\_>

>KpnI

>Acc65I

>BamI

>BpmI

410                    420                    430                    440  
 \*                    \*                    \*                    \*  
 AGC GGT ACC GAC TTC ACC TTC ACC ATC AGC AGC CTC CAG CCA GAG GAC  
 TCG CCA TGG CTG AAG TGG AAG TGG TAG TCG TCG GAG GTC GGT CTC CTG  
 Ser Gly Thr Asp Phe Thr Phe Thr Ile Ser Ser Leu Gln Pro Glu Asp>  
 \_\_\_\_\_H22 VL\_\_\_\_\_>

>StyI

>BseRI

>BssSI

>EaeI

450                    460                    470                    480                    490  
 \*                    \*                    \*                    \*                    \*  
 ATC GCC ACC TAC TAC TGC CAT CAA TAC CTC TCC TCG TGG ACG TTC GGC  
 TAG CGG TGG ATG ATG ACG GTA GTT ATG GAG AGG AGC ACC TGC AAG CCG  
 Ile Ala Thr Tyr Tyr Cys His Gln Tyr Leu Ser Ser Trp Thr Phe Gly>

FIGURE 4B

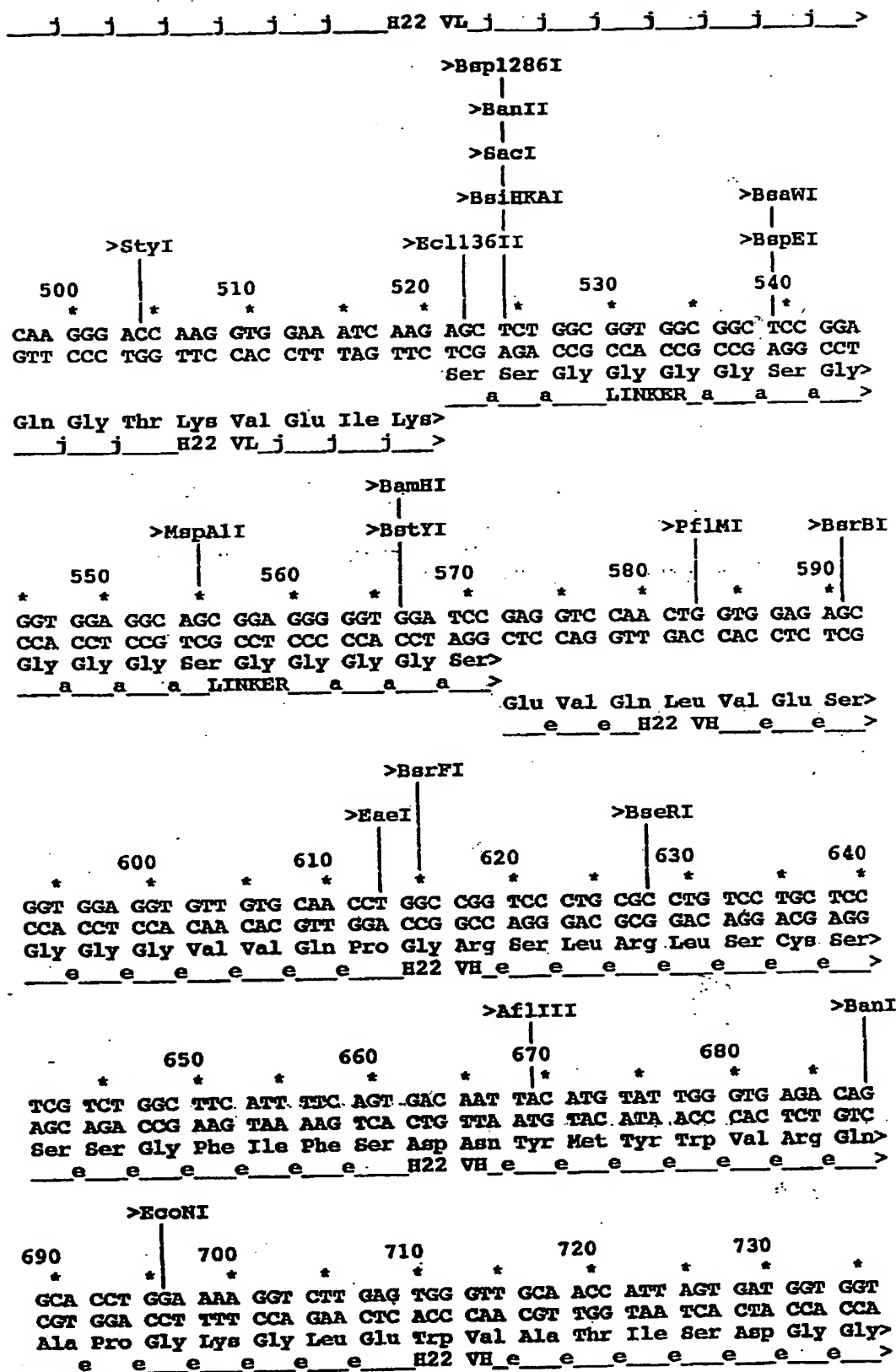


FIGURE 4C

FIGURE 4D

FIGURE 4D



```

      980      |      990      *      1000      *      1010      |      1020
      *      *      *      *      *      *      *
CTG AAT GCT GTG GGC CAG GAC ACG CAG GAG GTC ATC GTG GTG CCA CAC
GAC TTA CGA CAC CCG GTC CTG TGC GTC CTC CAG TAG CAC CAC GGT GTG
  Asn>
  >
Leu>
  >
Ala Val Gly Gln Asp Thr Gln Glu Val Ile Val Val Pro His>
  _i_ _i_ _i_ _i_ _i_ PDGFR TM DOMAIN_i_ _i_ _i_ _i_ _i_ >

                                     >KcmI
                                     |
                                     >BglI
                                     |
      1030      *      1040      *      1050      *      1060      *      1070
      *      *      *      *      *      *      *      *
TCC TTG CCC TTT AAG GTG GTG GTG ATC TCA GCC ATC CTG GCC CTG GTG
AGG AAC GGG AAA TTC CAC CAC CAC TAG AGT CCG TAG GAC CCG GAC CAC
Ser Leu Pro Phe Lys Val Val Val Ile Ser Ala Ile Leu Ala Leu Val>
  _i_ _i_ _i_ _i_ _i_ _i_ PDGFR TM DOMAIN_i_ _i_ _i_ _i_ _i_ _i_ >

>BsiHKAI
|
>Bsp1286I
|
      1080      *      1090      *      1100      *      1110      *      1120
      *      *      *      *      *      *      *      *
GTG CTC ACC ATC ATC TCC CTT ATC ATC CTC ATC ATG CTT TGG CAG AAG
CAC GAG TGG TAG TAG AGG GAA TAG TAG GAG TAG TAC GAA ACC GTC TTC
Val Leu Thr Ile Ile Ser Leu Ile Ile Leu Ile Met Leu Trp Gln Lys>
  _i_ _i_ _i_ _i_ _i_ _i_ PDGFR TM DOMAIN_i_ _i_ _i_ _i_ _i_ _i_ >

      1130
      *      *
AAG CCA CGT T AG
TTC GGT GCA A TC
Lys Pro Arg>
  _i_ _i_ >

```

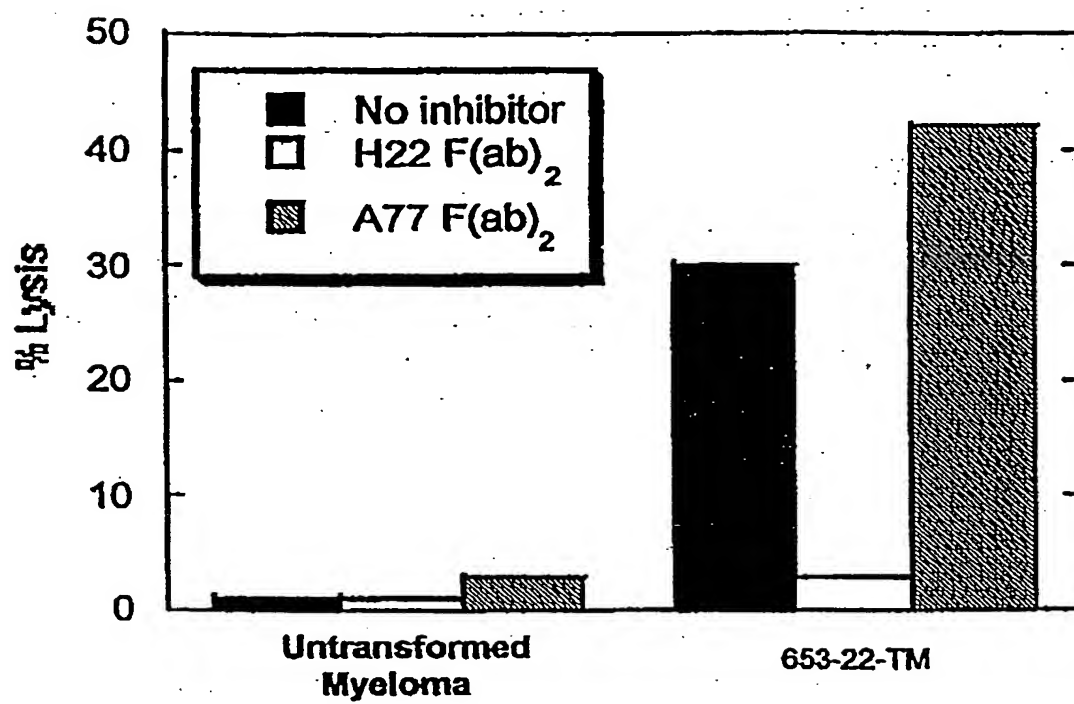


FIGURE 5

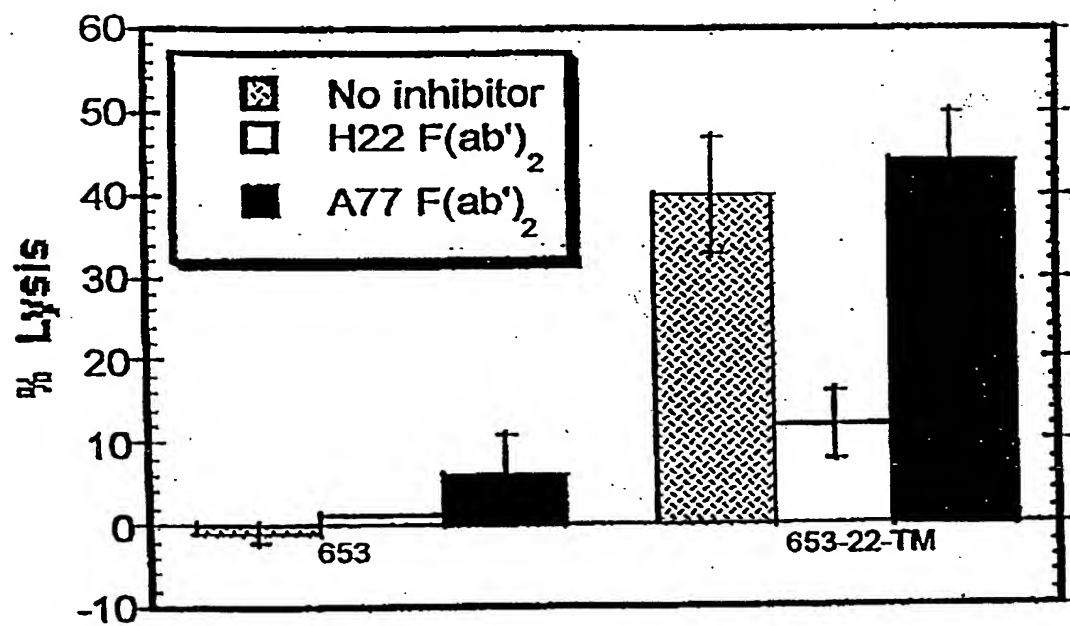


FIGURE 6

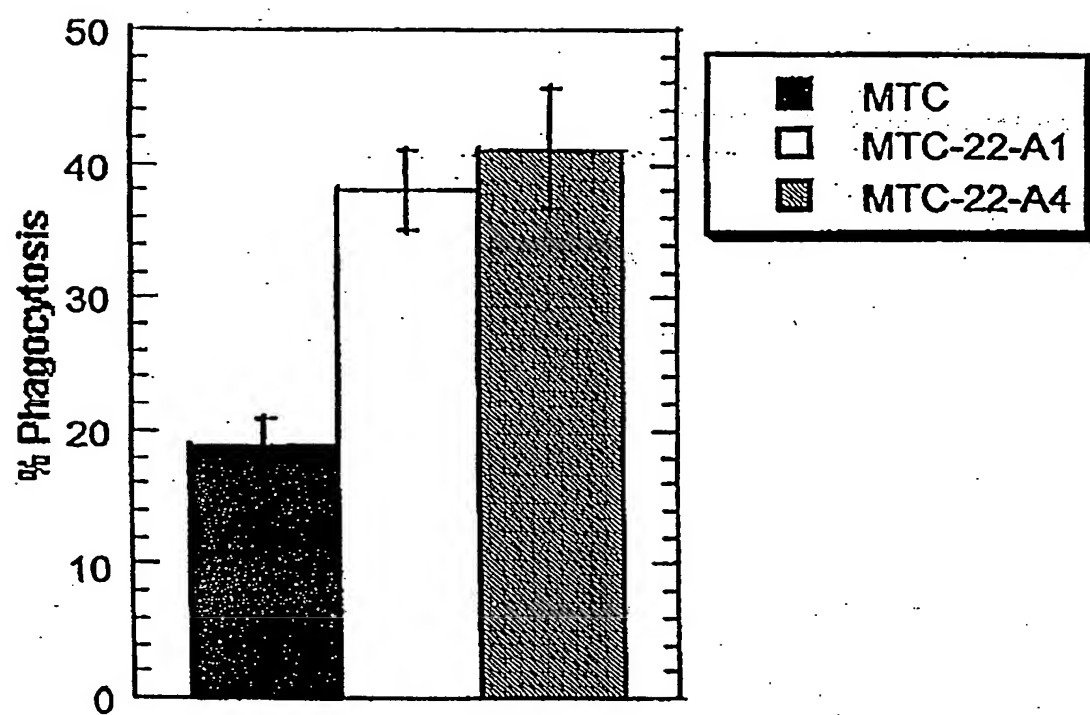


FIGURE 7

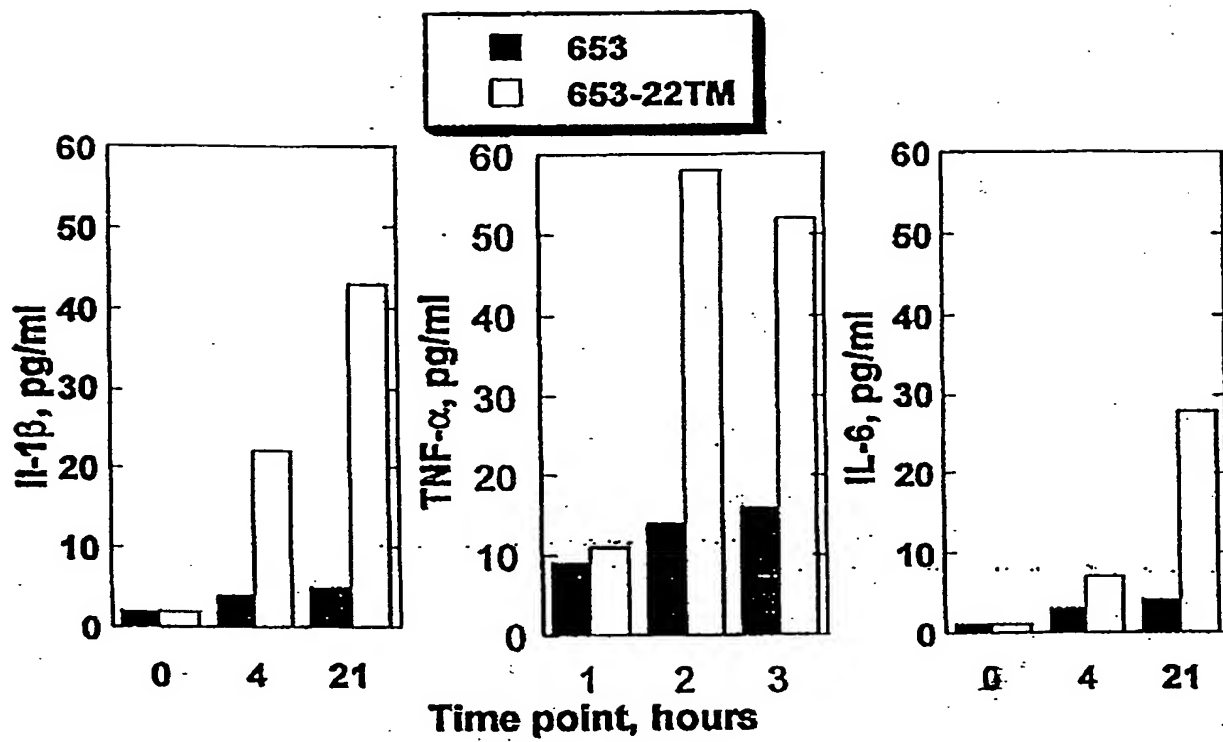


FIGURE 8

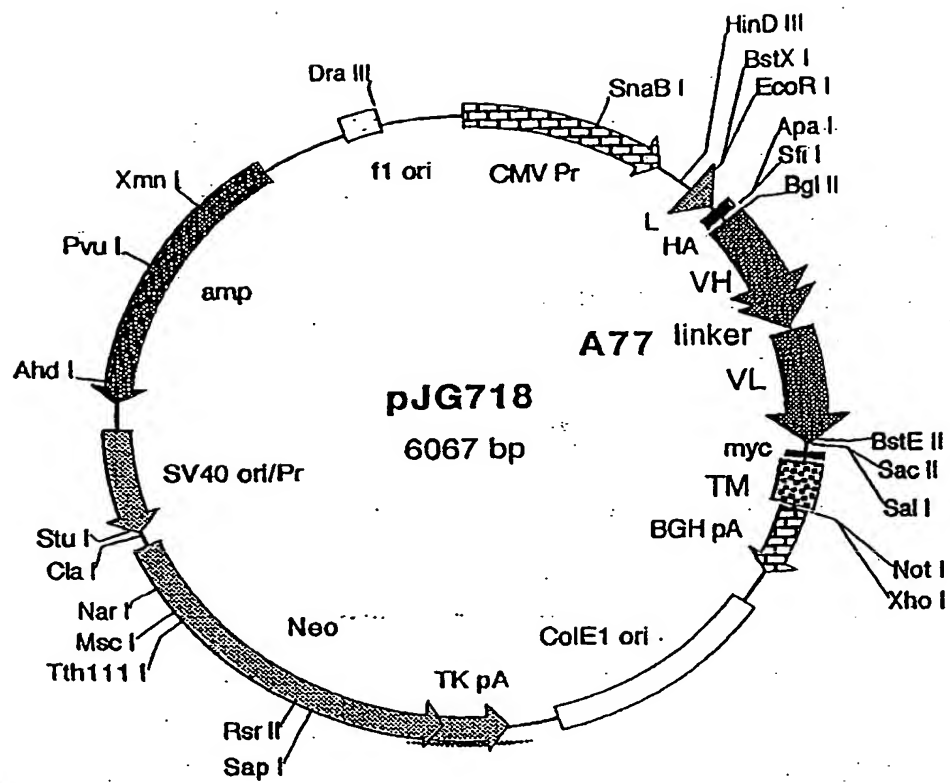


FIGURE 9

```

>BamHI
|
>BstYI
|
>BanII
|
>SaeI
|
>KpnI   >Bsp1286I   >BsiEI   >ApoI
|       |           |           |
>BanI   >Ecl136II  >SpeI   >EaeI   >EcoRI
|       |           |           |           |
>HindIII >Acc65I   >BsiHKAI >EagI   >BstXI
|       |           |           |           |
10      20      30      40      50      60
*       *       *       *       *       *
AAGCTTGGTA CCGAGCTCGG ATCCACTAGT AACGGCCGCC AGTGTGCTGG AATTCGGCCTT
TTCGAACCAT GGCTCGAGCC TAGGTGATCA TTGCCGGCGG TCACACGACC TTAAGCCGAA

>NcoI
|
>EcoRV   >StyI
|       |
70      80      90      100     110
*       *       *       *       *
GGGGATATCC ACC ATG GAG ACA GAC ACA CTC CTG CTA TGG GTA CTG CTG CTC
CCCCTATAGG TGG TAC CTC TGT CTG TGT GAG GAC GAT ACC CAT GAC GAC GAG
Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu Leu Leu>
_b_b_b_b_IG K-CHAIN SP_b_b_b_b_>

>NdeI
|
120     130     140     150     160
*       *       *       *       *
TGG GTT CCA GGT TCC ACT GGT GAC TAT CCA TAT GAT GTT CCA GAT TAT
ACC CAA GGT CCA AGG TGA CCA CTG ATA GGT ATA CTA CAA GGT CTA ATA
Trp Val Pro Gly Ser Thr Gly Asp>
_b_b_IG K-CHAIN SP_b_b_>
Tyr Pro Tyr Asp Val Pro Asp Tyr>
_c_c_HA EPITOPE_c_c_>

>EaeI
|
>BanII   >NaeI
|       |
>Bsp1286I >SfiI
|       |
>ApaI   >BglI
|       |
>EcoO109I >BsrFI   >BglII   >MspAII   >PstI
|       |           |           |           |
>Bsp120I >NgoMI   >BstYI   >BstYI   >PvuII
|       |           |           |           |
170     180     190     200
*       *       *       *
GCT GGG GCC CAG CCG GCC AGA TCT GAG ATC CAG CTG CAG CAG ACT GGA
CGA CCC CGG GTC GGC CGG TCT AGA CTC TAG GTC GAC GTC GTC TGA CCT
Ala>
____>
Glu Ile Gln Leu Gln Gln Thr Gly>
f_f_A77 VH f_f_f_>

```

FIGURE 10A

Gly Ala Gln Pro Ala Arg Ser>  
 \_ \_ \_ \_ \_ MISC \_ \_ \_ \_ \_>

>Eco57I  
 210                      220                      230                      240                      250  
 \*                      \*                      \*                      \*                      \*  
 CCT GAG CTG GTG AAG CCT GGG GCT TCA GTG AAG ATA TCC TGC AAG GCT  
 GGA CTC GAC CAC TTC GGA CCC CGA AGT CAC TTC TAT AGG ACG TTC CGA  
 Pro Glu Leu Val Lys Pro Gly Ala Ser Val Lys Ile Ser Cys Lys Ala>  
 \_ f \_ f \_ f \_ f \_ f \_ f \_ A77 VH \_ f \_ f \_ f \_ f \_ f \_ f \_>

>EcoRV  
 >NcoI  
 >StyI

260                      270                      280                      290                      300  
 \*                      \*                      \*                      \*                      \*  
 TCT GGT TAT TCA TTC ACT GAC TAC ATC ATA TTT TGG GTG AAG CAG AGC  
 AGA CCA ATA AGT AAG TGA CTG ATG TAG TAT AAA ACC CAC TTC GTC TCG  
 Ser Gly Tyr Ser Phe Thr Asp Tyr Ile Ile Phe Trp Val Lys Gln Ser>  
 \_ f \_ f \_ f \_ f \_ f \_ f \_ A77 VH \_ f \_ f \_ f \_ f \_ f \_ f \_>

>AseI  
 >SspI

310                      320                      330                      340                      350  
 \*                      \*                      \*                      \*                      \*  
 CAT GGA AAG AGC CTT GAG TGG ACT GGA AAT ATT AAT CCT TAC TAT GGT  
 GTA CCT TTC TCG GAA CTC ACC TGA CCT TTA TAA TTA GGA ATG ATA CCA  
 His Gly Lys Ser Leu Glu Trp Thr Gly Asn Ile Asn Pro Tyr Tyr Gly>  
 \_ f \_ f \_ f \_ f \_ f \_ f \_ A77 VH \_ f \_ f \_ f \_ f \_ f \_ f \_>

>AccI  
 >ScaI  
 >Eco57I  
 >SfoI

360                      370                      380                      390                      400  
 \*                      \*                      \*                      \*                      \*  
 AGT ACT AGC TAC AAT CTG AAG TTC AAG GGC AAG GCC ACA TTG ACT GTA  
 TCA TGA TCG ATG TTA GAC TTC AAG TTC CCG TTC CGG TGT AAC TGA CAT  
 Ser Thr Ser Tyr Asn Leu Lys Phe Lys Gly Lys Ala Thr Leu Thr Val>  
 \_ f \_ f \_ f \_ f \_ f \_ f \_ A77 VH \_ f \_ f \_ f \_ f \_ f \_ f \_>

410                      420                      430                      440  
 \*                      \*                      \*                      \*  
 GAC AAA TCT TCC AGC ACA GCC TAC ATG CAG CTC AAC AGT CTG ACA TCT  
 CTG TTT AGA AGG TCG TGT CGG ATG TAC GTC GAG TTG TCA GAC TGT AGA  
 Asp Lys Ser Ser Ser Thr Ala Tyr Met Gln Leu Asn Ser Leu Thr Ser>  
 \_ f \_ f \_ f \_ f \_ f \_ f \_ A77 VH \_ f \_ f \_ f \_ f \_ f \_ f \_>

>PstI  
 >DrdI  
 >SfoI  
 >BseRI

450                      460                      470                      480                      490  
 \*                      \*                      \*                      \*                      \*  
 GAG GAC TCT GCA GTC TAT TAC TGT GTA AGA GGA GTT TAT TAC TAC GGT  
 CTC CTG AGA CGT CAG ATA ATG ACA CAT TCT CCT CAA ATA ATG ATG CCA  
 Glu Asp Ser Ala Val Tyr Tyr Cys Val Arg Gly Val Tyr Tyr Tyr Gly>

FIGURE 10B



```

f f f f f f A77 VH f f f f f f f f >

                                     >StyI
500          510          520          530          540
*            *            *            *            *
AGT AGC TAC GAG GCG TTT CCT TAC TGG GGC CAA GGG ACT CTG GTC ACT
TCA TCG ATG CTC CGC AAA GGA ATG ACC CCG GTT CCC TGA GAC CAG TGA
Ser Ser Tyr Glu Ala Phe Pro Tyr Trp Gly Gln Gly Thr Leu Val Thr>
f f f f f f f A77 VH f f f f f f f f >

      >PstI          >BsaWI          >BseRI
      |             |             |
>SfoI          >BspEI          >MspAI
|             |             |
550          560          570          580          590
*            *            *            *            *
GTC TCT GCA GGA GGT GGC GGC TCC GGA GGA GGT GGC AGC GGA GGG GGC
CAG AGA CGT CCT CCA CCG CCG AGG CCT CCT CCA CCG TCG CCT CCC CCG
Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly>
a a a a a a LINKER a a a a a a
Val Ser Ala>
f f >

>BamHI
>BstYI
|
600          610          620          630          640
*            *            *            *            *
GGA TCC GAT GTT GTG ATG ACC CAG ACT CCA CTC ACT TTG TCG ATT ACC
CCT AGG CTA CAA CAC TAC TGG GTC TGA GGT GAG TGA AAC AGC TAA TGG
Gly Ser>
a >
Asp Val Val Met Thr Gln Thr Pro Leu Thr Leu Ser Ile Thr>
g g g g g g A77 VK g g g g g g g g >

650          660          670          680
*            *            *            *            *
ATT GGA CAA CCA GCC TCC ATC TCT TGC AAG TCA AGT CAG AGC CTC TTA
TAA CCT GTT GGT CGG AGG TAG AGA ACG TTC AGT TCA GTC TCG GAG AAT
Ile Gly Gln Pro Ala Ser Ile Ser Cys Lys Ser Ser Gln Ser Leu Leu>
g g g g g g A77 VK g g g g g g g g >

690          700          710          720          730
*            *            *            *            *
GAT AGT GAT GGA AAG ACA TAT TTG AAT TGG TTG TTA CAG AGG CCA GGC
CTA TCA CTA CCT TTC TGT ATA AAC TTA ACC AAC AAT GTC TCC GGT CCG
Asp Ser Asp Gly Lys Thr Tyr Leu Asn Trp Leu Leu Gln Arg Pro Gly>
g g g g g g A77 VK g g g g g g g g >

                                     >DrdI
740          750          760          770          780
*            *            *            *            *
CAG TCT CCA ACG CGC CTA ATC TAT CTG GTG TCT AAA CTG GAG TCT GGA
GTC AGA GGT TGC GCG GAT TAG ATA GAC CAC AGA TTT GAC CTG AGA CCT
Gln Ser Pro Thr Arg Leu Ile Tyr Leu Val Ser Lys Leu Asp Ser Gly>
g g g g g g A77 VK g g g g g g g g >

      >BpmI
790          800          810          820          830

```

FIGURE 10 C



```

                                >BglI
                                ||
1030      1040      1050      1060      1070
*          *          *          *          *
CAC TCC TTG CCC TTT AAG GTG GTG GTG ATC TCA GCC ATC CTG GCC CTG
GTG AGG AAC GGG AAA TTC CAC CAC CAC TAG AGT CGG TAG GAC CGG GAC
His Ser Leu Pro Phe Lys Val Val Val Ile Ser Ala Ile Leu Ala Leu>
_e_e_e_e_e_e PDGFR TM DOMAIN_e_e_e_e_e_e_e_e>

>BsiHKAI
|
>Bsp1286I
|
1080      1090      1100      1110      1120
*          *          *          *          *
GTG GTG CTC ACC ATC ATC TCC CTT ATC ATC CTC ATC ATG CTT TGG CAG
CAC CAC GAG TGG TAG TAG AGG GAA TAG TAG GAG TAG TAC GAA ACC GTC
Val Val Leu Thr Ile Ile Ser Leu Ile Ile Leu Ile Met Leu Trp Gln>
_e_e_e_e_e_e PDGFR TM DOMAIN_e_e_e_e_e_e_e_e>

1130
*          *          *
AAG AAG CCA CGT TAG
TTC TTC GGT GCA ATC
Lys Lys Pro Arg>
PDGFR TM____>

```

FIGURE 10E

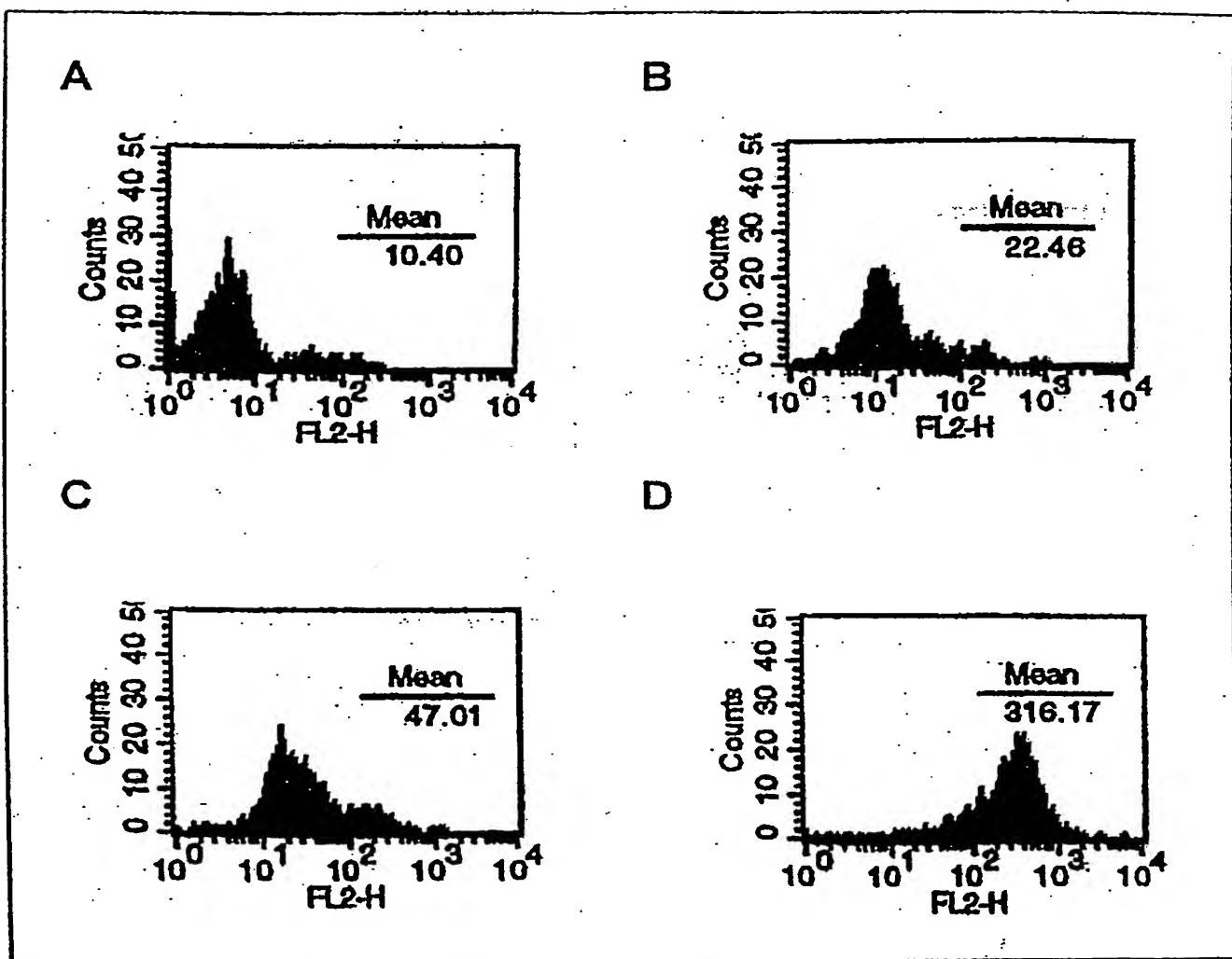


FIGURE II